

Low PIM N Male to QMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder

**FMCA1798-50CM**



**Configuration**

- Connector 1: N Male
- Connector 2: QMA Male
- Cable Type: SPP-250-LLPL
- Coax Flex Type: Corrugated

**Features**

- Max Frequency 5.8 GHz
- Low PIM: -150 dBc Max
- Shielding Effectivity > 100 dB
- 76% Phase Velocity
- FEP Jacket
- IP67 (Mated)
- Low Loss with Excellent VSWR
- PIM Test Results Marked on Each Cable
- UL910 Plenum Rated Cable
- Extremely Flexible and Lightweight



**Applications**

- General Purpose
- Laboratory Use
- Low PIM Applications
- DAS
- Mobile Networks
- In-Building Wireless
- Small Cells
- PIM Testing

**Description**

The type N male to QMA male 50 cm cable using SPP-250-LLPL coax, part number FMCA1798-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview type N to QMA cable assembly has a male to male gender configuration with 50 ohm corrugated SPP-250-LLPL coax. Fairview Microwave’s corrugated RF cable assemblies are ideal for applications where durability and high power are needed. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -150 dBc. The FMCA1798-50CM type N male to QMA male cable assembly operates to 5.8 GHz.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation			-150	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				

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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Capacitance		27 [88.58]		pF/ft [pF/m]
Inductance		0.067 [0.22]		uH/ft [uH/m]
DC Resistance Inner Conductor		3 [9.84]		Ohms/1000ft [Ohms/Km]

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.12	0.15	0.18	0.29	0.44	dB

Electrical Specification Notes:

The insertion loss data above is based on the performance specifications of the coax cable used in this assembly. The insertion loss includes an estimated insertion loss of  $0.04 \cdot \text{SQRT}(\text{FGHz})$  dB maximum per connector.

**Mechanical Specifications**

**Cable Assembly**

Length 19.685 in [500 mm]

**Cable**

Cable Type SPP-250-LLPL  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper  
 Dielectric Type PTFE  
 Number of Shields 1  
 Outer Conductor 1 Material and Plating Copper  
 Jacket Material FEP, Blue  
 Jacket Diameter 0.28 in [7.11 mm]  
 One Time Minimum Bend Radius 1.25 in [31.75 mm]  
 Bending Moment 0.8 lbs-ft [1.08 N-m]

**Connectors**

Description	Connector 1	Connector 2
Type	N Male	QMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Brass, Silver
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Phosphor Bronze, Tri-Metal
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal

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### Environmental Specifications

Operating Range Temperature -55 to +165 deg C

**Compliance Certifications** (see [product page](#) for current document)

### Plotted and Other Data

Notes:

### Typical Performance Data



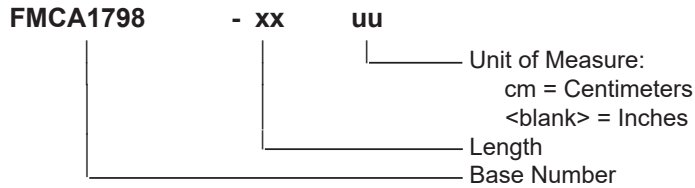
Low PIM N Male to QMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder



**FMCA1798-50CM**

**How to Order**

Part Number Configuration:



Example: FMCA1798-12 = 12 inches long cable  
FMCA1798-100cm = 100 cm long cable

Low PIM N Male to QMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

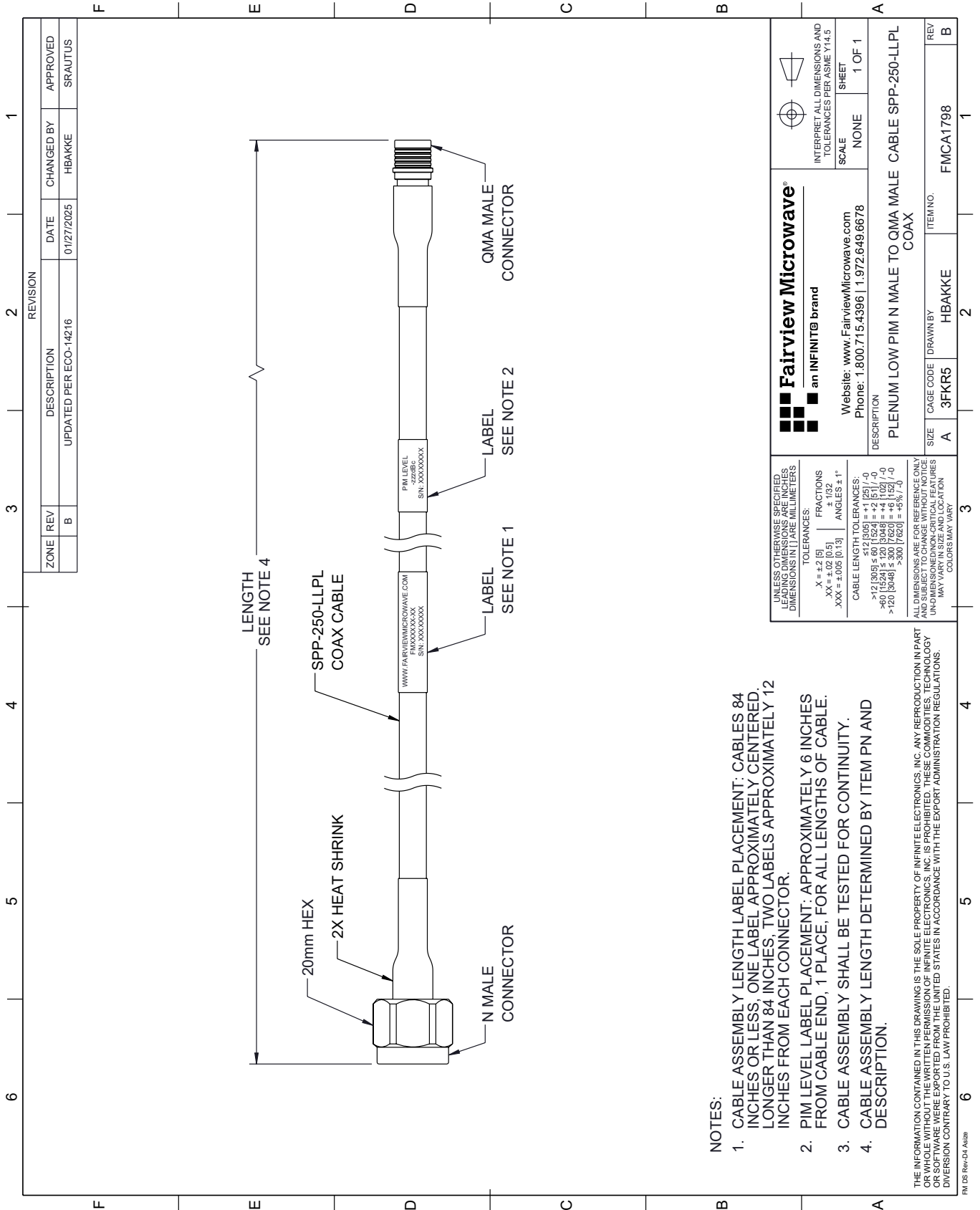
For additional information on this product, please click the following link: [Low PIM N Male to QMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder FMCA1798-50CM](#)

URL: <https://www.fairviewmicrowave.com/n-male-qma-male-cable-spp250llpl-coax-fmca1798-50cm-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

# FMCA1798-50CM CAD Drawing

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**NOTES:**

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: CABLES 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED, LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
2. PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
4. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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<p><b>Fairview Microwave®</b> an INFINIT® brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE SHEET: 1 OF 1</p>
<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [ ] ARE IN MILLIMETERS.</p> <p>TOLERANCES:          .X = ±.2 [5]          .XX = ±.02 [0.5]          .XXX = ±.005 [0.13]          FRACTIONS ± 1/32          ANGLES ± 1°</p> <p>CABLE LENGTH TOLERANCES:          &gt;12 [304.8] ≤ 60 [1524] = ±1 [25] / -0          &gt;60 [1524] ≤ 120 [3048] = ±4 [102] / -0          &gt;120 [3048] ≤ 300 [7620] = ±5% [152] / -0</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>		
<p>DESCRIPTION PLENUM LOW PIM N MALE TO QMA MALE CABLE SPP-250-LLPL COAX</p>		<p>REV B</p>
<p>SIZE A</p>	<p>CAGE CODE 3FKR5</p>	<p>ITEM NO. FMCA1798</p>
<p>DRAWN BY HBAKKE</p>		<p>REV B</p>